

REMARKS

Applicant has reviewed, and carefully considered the non-final Office Action dated December 14, 2004. Claims 1-27 are pending. Claims 1-4, 6-12, 14-20, and 22-27 are rejected. Claims 5, 13, and 21 are objected to.

Applicant appreciates Examiner's indication of allowability of claims 5, 13, and 21.

In paragraph 3 on page 2 of the Office Action, claims 1, 6-9, 14-17, and 22-27 were rejected under 35 U.S.C. § 103(a) over Forehand (U.S. Patent No. 6,760,174) in view of Kamijima (U.S. Patent Pub. No. 2003/0099054).

In paragraph 4 on page 4 of the Office Action, claims 2-4, 8, 10-12, 16, and 18-21 were rejected under 35 U.S.C. § 103(a) over Forehand as modified by Kamijima, and in further view of Tokuyama et al. (U.S. Patent No. 6,594,104).

Applicant respectfully traverses the § 103(a) rejections. Applicant submits that the requirements for a §103(a) rejection are not present and a prima facie rejection fails because the Office Action fails to cite a reference or references that teaches, discloses or suggests all the claim limitations of Applicant's Application.

Applicant's claim 1, for example, recites "writing reference data at a radius on a recording medium using a head; attempting to read the written reference data; determining whether the read attempt was successful; and adjusting a level of heating on a heating element at the head to increase protrusion of the head until the read attempt is successful."

Forehand, in contrast, focuses on a method for data recovery. Nowhere in Forehand is reference data, or anything related to writing reference data suggested. Therefore, Forehand fails to disclose, teach or suggest "writing reference data at a radius on a recording medium." Because Forehand fails to write reference data, Forehand also fails to disclose, teach or suggest "attempting to read the written reference data."

Furthermore, the invention requires the "increase protrusion of the head until the read attempt is successful." In accordance with Forehand's focus on error recovery, an error recovery routine is initiated upon "receipt of a data sector unreadable signal generated by the read/write channel 148." Column 5, lines 58-60. Only after the unreadable signal is received is the fly-height of the read/write head adjusted.

Because fly-height is adjusted during a data recovery routine, Forehand fails to disclose, teach or suggest the "increase protrusion of the head until the read attempt is successful" in reading the written reference data.

Kamijima fails to remedy the deficiencies of Forehand. Kamijima focuses on a thin film magnetic head with heating means. However, Kamijima does not mention writing reference data anywhere. While Kamijima does suggest adjusting current flow for changing the heating of the heating element, Kamijima fails to disclose, teach or suggest adjusting a level of heating on a heating element at the head to increase protrusion of the head "until the read attempt is successful." Kamijima fails to suggest that determining whether a read is successful and adjusting the level of heating until the read is successful. Rather, Kamijima merely disclose one method for fabricating a head having a heating element. Further, while Forehand teaches raising and lowering the fly height of the head, Forehand fails to suggest determining whether a read is successful and adjusting the level of heating until the read is successful.

Therefore, Forehand and Kamijima, alone or in combination, fail to disclose, teach or suggest "writing reference data at a radius on a recording medium using a head; attempting to read the written reference data; determining whether the read attempt was successful; and adjusting a level of heating on a heating element at the head to increase protrusion of the head until the read attempt is successful."

The alleged motivation for modifying Forehand with Kamijima is improper because the Office Action simply states the combination using heating techniques would "precisely control the fly height of the transducer during write and read processes and improving the signal reading/writing capability of the transducer due to increased data density." It is respectfully submitted that the Office Action does not provide any evidence, nor is it apparent, that the Forehand approach would be improved if the heating techniques of Kamijima were to be included in the Forehand configuration. In fact, nowhere in Forehand does it state the desirability of precisely controlling fly height during write and read processes. Furthermore, the Office Action provides no evidence to suggest those specific elements of Forehand that could be modified with elements of Kamijima. Therefore, the § 103(a) rejection is improper as being conclusory, based on hindsight, and fails to show that the combination could be made with a reasonable

likelihood of success. Applicant respectfully requests that the § 103(a) rejection of claims 1, 6-9, 14-17, and 22-27 be withdrawn.

Tokuyama too fails to remedy the deficiencies of Forehand and Kamijima. Tokuyama merely discloses a magnetic disk unit having temperature sensing of an integrated circuit on suspension. Tokuyama does not, however, disclose, teach or suggest Applicant's "writing reference data at a radius on a recording medium," "attempting to read the written reference data," or "adjusting a level of heating on a heating element at the head to increase protrusion of the head until the read attempt is successful."

Therefore, Applicant respectfully submits that the claims are patentable over the cited references and requests that the § 103(a) rejections of the claims be withdrawn.

Dependent claims 2-8, 10-16, and 18-24 are also patentable over the references, because they incorporate all of the limitations of the corresponding independent claims 1, 9, and 17. Further, dependent claims 2-8, 10-16, and 18-24 recite additional novel elements and limitations. Applicant reserves the right to argue independently the patentability of these additional novel aspects. Therefore, Applicant respectfully submits that dependent claims 2-8, 10-16, and 18-24 are patentable over the cited patent.

On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested. Please charge/credit Deposit Account No. 50-0996 (HITG.038PA) for any deficiencies/overpayments.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicant's attorney of record, David W. Lynch at 651-686-6633 Ext 116.

Respectfully submitted,

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